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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/760,387

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Michael Roger Cane

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07/06/2004

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EXAMINER

SMITH, RUTH S

ART UNIT

PAPER NUMBER

3737

DATE MAILED: 07/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/760,387

Applicant(s)

CANE ET AL.

Examiner

Ruth S Smith

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5-35,42-50,52,58,59 and 64-67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-34 and 64-67 is/are allowed.
- 6) ☒ Claim(s) 1,5-12,35,42-50,52,58 and 59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 17, 2004 has been entered.

Claim Objections

Claims 1, 5-12,35,42-50,52,58,59 are objected to because of the following informalities: In claim 1, it is unclear as to the connection between the step of spectroscopically analyzing and the step of analyzing the difference in that it is unclear as to whether the spectroscopically analyzed remitted light is used in the difference determination. Applicant states in his remarks that the remitted light would be spectroscopically analyzed to allow a comparison between incident and remitted light, however, this is not clear in the claim language presently set forth. In claim 5, line 14, "the normalized further portion" lacks antecedent basis. In claim 35, line 12, "the normalized further portion" lacks antecedent basis. In claim 48, line 1, "36" should be "35" inasmuch as claim 36 has been cancelled. Claim 58 is objected to in that other than the initial step in the method, it fails to positively set forth active steps in the method. The claim language appears to be grammatically incorrect. Appropriate correction is required.

Claim Rejections - 35 USC § 112

Claims 1,5-12, 35,42-50,52 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification fails to disclose comparing variations in the intensity and spectral characteristics of the normalized data with data representing a sample of characteristics of light remitted by a sample of known structure. The specification merely sets forth that "The present invention

includes any method of analyzing biological tissue comprising illuminating the tissue with light, spectrally measuring and analyzing the differences between the incident and remitted light, the analysis of this data to define a parameter of the tissue, the normalization of the data to a standard value of that parameter using a predictive mathematical model of the optical properties of the biological tissue, **and the subsequent measurement of a further parameter from that normalized data, preferably with more than one sequential normalization and analysis step to define further parameters."**

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 58,59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gutkowicz-Krusin et al in view of Thomas et al. Gutkowicz-Krusin et al disclose non-invasive spectral imaging and characterization of skin tissue. The method includes illuminating an area of skin with light from three spectral bands and digitally imaging the area of skin with the remitted light. The digital images are comprised of digital signals whose values are functions of the skin condition. The images are processed and segmented by a processor. The processor outputs the condition of the skin by estimating values of skin parameters and comparing a weighted combination of these values to a threshold value. The threshold value may come from a training set of images that exemplify skin conditions. Gutkowicz-Krusin et al fails to specifically disclose the use of a reference sample determined from a mathematical model. Thomas et al disclose an optical diagnostic system including using mathematical models as reference samples. It would have been obvious to one skilled in the art to have modified Gutkowicz-Krusin et al such that the reference sample used is obtained from a mathematical model. The modification merely involves the substitution of one known type of reference sample for another.

Allowable Subject Matter

Claims 13-34,64-67 are allowable over the prior art of record.

Response to Arguments

Applicant's arguments with respect to claims 1,5-12, 35,42-50,52,58,59 have been considered but are moot in view of the new ground(s) of rejection. It should be noted that the portions of the disclosure referred to by applicant as providing support for the claim language changes do not include the limitations as presently claimed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth S Smith whose telephone number is (703) 308-3063. The examiner can normally be reached on M-F 5:30 AM- 2:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on (703) 308-5181. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ruth S Smith
Primary Examiner
Art Unit 3737